

## Digest of Green Reports and Studies

<b>Title</b>	<b><i>New York State's Clean Energy Industry: Labor Market and Workforce Intelligence</i></b>
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<b>Summary</b>	<p>This report has been prepared in response to the First Report of the Renewable Energy Task Force to then Lieutenant Governor David A. Paterson, <i>Clean, Secure Energy and Economic Growth: A Commitment to Renewable Energy and Enhanced Energy Independence</i> (February 2008), which directed the New York State Department of Labor (NYSDOL)</p> <p>This directive is addressed from the perspective of three primary objectives of public investment in clean energy jobs.</p> <ul style="list-style-type: none"> <li>• Stimulate Job Creation / Job Retention – provide capital investment in manufacture, installation, production and maintenance across the entire supply chain that supports the clean energy industry.</li> <li>• Support Workforce Development – provide workers with the requisite knowledge, skills and abilities to allow business productivity to be competitive in a global economy and to assure business output achieves quality and efficiency expectations.</li> <li>• Advance Pathways Out of Poverty.</li> </ul> <p>This report addresses three key aspects of clean energy jobs in New York State.</p> <ul style="list-style-type: none"> <li>• Labor Market Characterization – Describing the labor market characteristics of the state's priority clean energy sectors, including staffing patterns, skill requirements, earnings, career ladder opportunities, occupational trends and labor supply/demand assessment.</li> <li>• Workforce Development and Training – Identifying an inventory of existing training programs that support the priority sectors; and identifying barriers to training, including barriers facing low income individuals and communities of color.</li> <li>• State Level Collaboration.</li> </ul>
<b>Key Findings</b>	<p>The current economic landscape is too dynamic and evolving to accurately estimate the number of jobs in New York State's clean energy industry. However, the results of this report illustrate an important characteristic of clean energy jobs ... that most clean energy jobs are not unique to the clean energy industry, and require the same range of education, skills and earnings as jobs in other energy sectors, and jobs in the construction and manufacturing industries.</p> <p>An inventory of 49 renewable energy and weatherization training locations across the state, delivering approximately 70 distinct programs, were identified for this report. The largest share of the training programs is in energy efficiency (57%) followed by solar (32%), wind (7%) and biomass (3%).</p> <p>The barriers to training addressed in this report are listed below. The report describes each barrier and provides one or more recommendations for addressing the barrier.</p> <ol style="list-style-type: none"> <li>1. Attaching employment-related outcomes to training (e.g., entered employment, employment retention and wage increases).</li> <li>2. Loss of income while participating in training (particularly loss of needs-related income).</li> <li>3. Cost of Work Experience / On the Job Training.</li> </ol>

	<p>4. Pathways out of Poverty: Need for Employment Retention Supports.</p> <p>5. Cost of Tuition.</p> <p>6. Need for Training Infrastructure.</p> <p>7. Need for Marketing and Outreach.</p>
<b>Recommendations</b>	<p>The report recommendations for the following topics:</p> <ul style="list-style-type: none"> <li>• Clean Energy Occupations;</li> <li>• State Agency Collaboration and Program Alignment;</li> <li>• Training Inventory;</li> <li>• Barriers to Training;</li> <li>• Labor Market Intelligence; and</li> <li>• New York State Green Jobs Portal.</li> <li>• Barriers to training addressed</li> </ul>
<b>Definition of “Green”</b>	<p>Every green-collar job advances two simultaneous and complementary goals: 1) improving the environment; and 2) rebuilding a strong American middle class.</p> <p>Green-collar jobs are good paying, career track jobs that contribute significantly to preserving or enhancing environmental quality. Like blue-collar jobs, green collar jobs range from low-skill, entry level positions to high-skill, higher-paid jobs, and include opportunities for advancement in both skills and wages.</p> <p>Green-collar jobs also tend to be local jobs because they focus on transforming the immediate natural and built environment – retrofitting buildings, installing solar panels, constructing transit lines, growing energy crops, etc</p> <p>Most clean energy jobs are not unique to the clean energy industry, and require the same range of education, skills and earnings levels as jobs in other energy sectors, and jobs in the construction and manufacturing industries.</p>
<b>Methodology</b>	<p>Therefore, the methodology for identifying the labor market characteristics of New York State’s clean energy sectors is based on the following three elements.</p> <ol style="list-style-type: none"> <li>1. Identify businesses operating in each sector in New York State.</li> <li>2. Identify the NAICS codes and SOC codes associated with businesses in the sector. To obtain a NAICS code (and employer registration number), each clean energy business name was manually queried (one-by-one alpha search) against confidential data of firms covered by unemployment insurance. Quarterly Census of Employment and Wages (QCEW) data was then used to obtain: <ul style="list-style-type: none"> <li>• Total employment (2002 and 2007);</li> <li>• Total wages (2002 and 2007);</li> <li>• Geographic information (addresses, counties); and</li> <li>• Each company’s 6-digit NAICS industry description.</li> </ul> Occupational Employment and Wage Survey (OES) data was then used to obtain: <ul style="list-style-type: none"> <li>• Primary occupations making up more than 1% of the sector staffing;</li> <li>• Staffing pattern for the sector;</li> <li>• Wages (statewide, median, entry and experienced);</li> <li>• Skill requirements for the occupation; and</li> <li>• Occupation outlook (i.e., worker demand and supply).</li> </ul> </li> <li>3. Present the labor market characteristics of each sector based upon the identified NAICS code for each sector, and the staffing (occupations) associated with those industries. The rationale being that industries with the same NAICS code would typically have similar occupations, labor-sheds and workforce needs.</li> </ol>
<b>Data Sources Cited</b>	<p>Source Guides Renewable Energy Business Directory (<a href="http://energy.sourceguides.com">http://energy.sourceguides.com</a>); NYSERDA's Solar/Wind Installer Directory (<a href="http://www.powernaturally.org">www.powernaturally.org</a>).</p>
<b>Report Geography</b>	<p>New York State</p>

<b>Green Occupations Cited</b>	Too numerous to list.
<b>Green Industries Cited</b>	<ol style="list-style-type: none"> <li>1. Solar manufacturing (NAICS 333414, 334413, 334519,335121,335122)</li> <li>2. Solar installation (NAICS 238160, 238228)</li> <li>3. Wind turbine manufacturing (NAICS 333611)</li> <li>4. Wind turbine installation (NAICS 237130)</li> <li>5. Weatherization (NAICS 238220, 238310, 238350, 238290, 238390)</li> <li>6. Energy service companies ( NAICS 221119, 541330, 541690)</li> </ol>
<b>Keywords</b>	<ul style="list-style-type: none"> <li>• solar</li> <li>• wind</li> <li>• renewable energy</li> <li>• energy efficiency</li> <li>• weatherization</li> <li>• energy service companies</li> <li>• training requirement</li> <li>• education cluster</li> <li>• BPI</li> <li>• NABCEP</li> <li>• Business directory</li> <li>• Training directory</li> </ul>
<b>Legislation Cited</b>	American Recovery and Reinvestment Act of 2009
<b>Bibliography (Y/N)</b>	Y
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